

# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D412-742 REV. D  
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D412-742 REV. 3

REF. CANADIAN STC: SH05-37  
REF. FAA STC: SR01583SE  
REF. EASA STC: EASA.IM.R.S.01126

## PURPOSE:

The purpose of this service instruction is to introduce an alternate wearplate installation for the D412-742-011/-013 Skidtube Installations at CHG 006 or earlier. D412-742-011/-013 at CHG 007 or later have incorporated the new Wearplate kit. The new DSI-9517-011 Wearplate Kit consists of new wearplates destined to replace existing D3564-1/-3 Wearshoes and eliminates the need for D3566-1/-3 Gaskets. The components in the DSI-9517-011 Wearplate Kit are as defined in the parts list on sheet 4 of this service instruction.

## INSTALLATION PROCEDURE:

Replace D3564-1/-3 Wearshoes and D3566-1/-3 Gaskets with D4095-041/-043 Wearplates Assemblies as follows:

1. Remove existing D3564-1/-3 Wearshoes and D3566-1/-3 Gaskets per Item 32.6.1 of ICA-D412-742. It might be necessary to loosen the aft end of D3564-5 Wearshoe and D3566-5 Gasket.
2. Remove qty.(4) AN4C52A Bolts, D3403-1 Bushings, and qty.(8) D3672-11 Washers as indicated in Figures 1 and 2 of this service instruction.
3. Inspect the skidtube and saddles per Chapter 5 of ICA-D412-742.
4. Seal existing inserts located on both sides of the skidtube in area shown in Figures 1 and 2 of this service instruction using Sikaflex -241/-291 or Proseal 890 or MIL-S-8802 Class 2B sealant.
5. Locate the DSI-9517-011 Wearplate Kit as shown in Figure 1 and 2 of this service instruction.
6. Transfer drill qty.(2) Ø0.438 hole from the skidtube/saddle to the D4095-041/-043 Wearplates Assemblies. Deburr. Touch up finish per Item 5.2.14 of ICA-D412-742 as required.
7. Install the DSI-9517-011 Wearplate Kit using the same AN3C hardware as shown in ICA-D412-742. Torque to 15-25 in-lbs (1.7-2.8 N-m).
8. Install D3403-5 Bushings and AN4C53A Bolts in lieu of D3403-1 Bushings and AN4C52A Bolts removed at step 2 above. Ensure that the nuts on the AN4C Bolts are on the inboard side of the skidtube. Torque to 50-70 in-lbs (5.7-7.9 N-m).
9. Amend weight and balance per the Weight and Balance Table below.

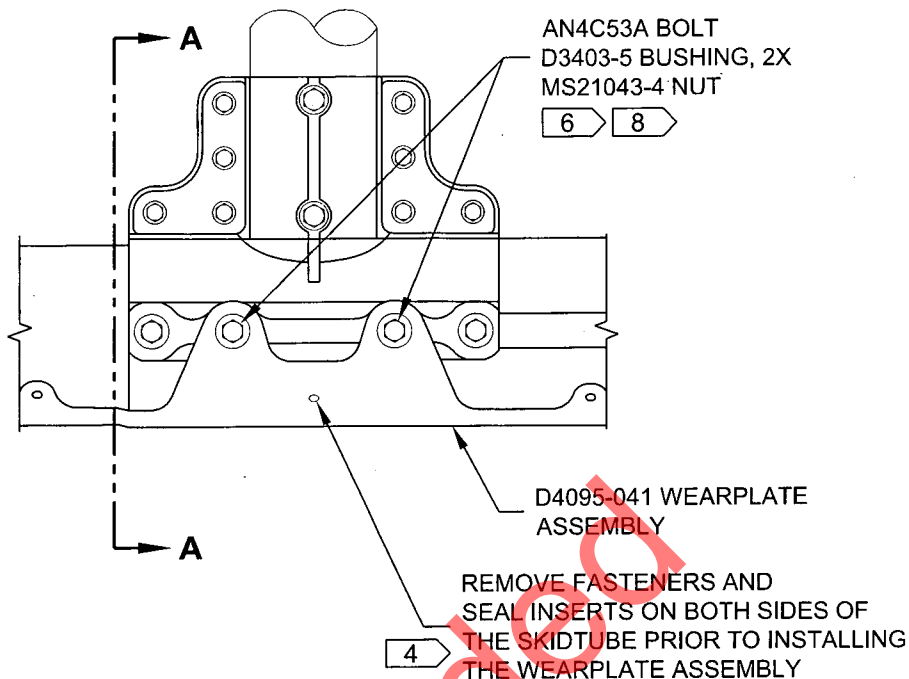
## WEIGHT AND BALANCE:

Use the following weight and balance information for DART D412-742-011/-013 skidtube and saddle installations equipped with DSI-9517-011 Wearplate Kit.

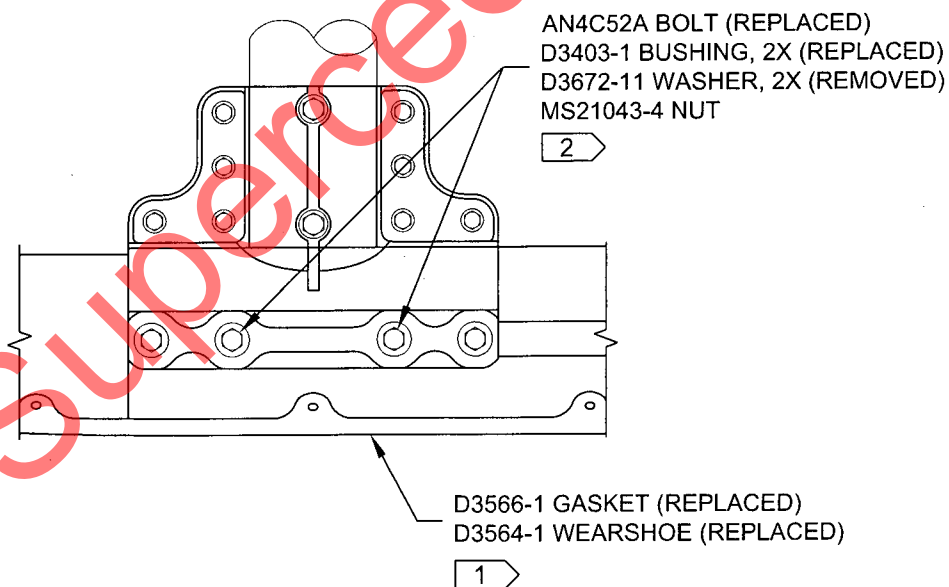
INSTALLATION	WEIGHT	LATERAL		LONGITUDINAL	
		ARM	MOMENT	ARM	MOMENT
<b>D412-742-011</b> <i>Float Skidtube Installation at CHG 007, or earlier CHG # with DSI-9517-011 kit installed</i>	70.0 lb 31.8 kg	±55.0 in ±1.40 m	±3850 in-lb ±44.5 m-kG	130 in 3.3 m	9100 in-lb 105 m-kG
<b>D412-742-013</b> <i>Float Skidtube Installation at CHG 007, or earlier CHG # with DSI-9517-011 kit installed</i>	70.0 lb 31.8 kg	±55.0 in ±1.40 m	±3850 in-lb ±44.5 m-kG	130 in 3.3 m	9100 in-lb 105 m-kG

B	ITEM 21B AND 22B REMOVED FROM PARTS LIST		XDF	11.10.11
A	NEW ISSUE		MB	10.04.21
REV.	DESCRIPTION		BY	DATE
DESIGN			<b>DART AEROSPACE USA, INC</b>	
DRAWN			KENT, WA	
CHECKED			DRAWING NO.	REV. B
MFG. APPR.	N/A		DSI 9517	SHEET 1 OF 6
APPROVED			TITLE	SCALE
DE APPR.			ALTERNATE WEARPLATE KIT	NTS
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IS:



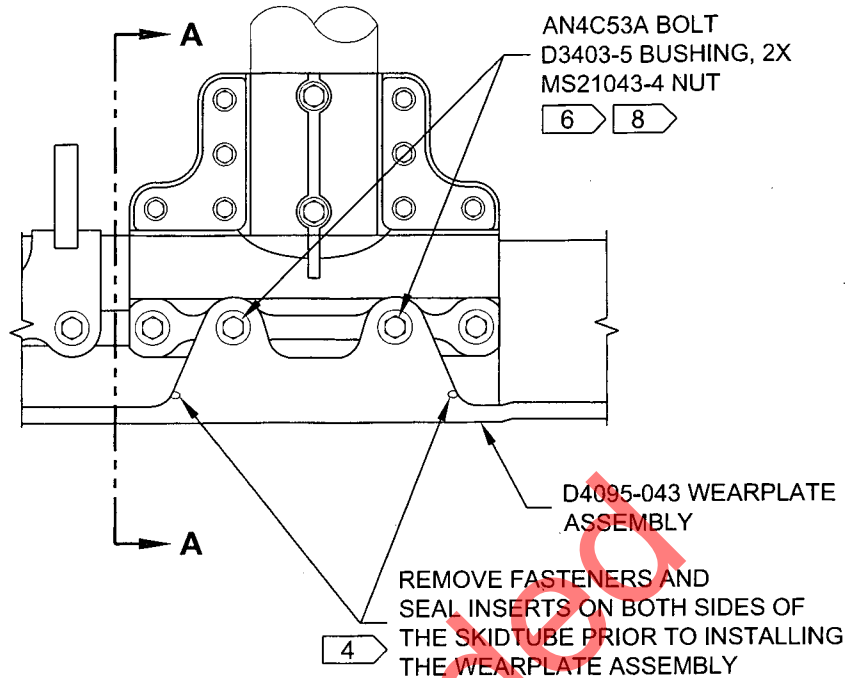
WAS:



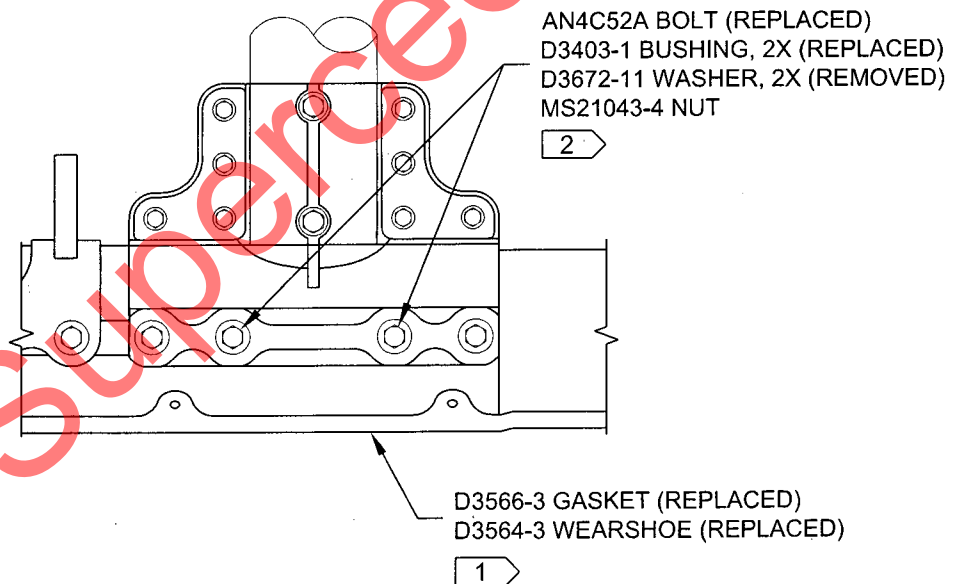
**FIGURE 1: CHANGE AT FORWARD SADDLE LOCATION  
WITH DSI-9517-011 KIT INSTALLED**

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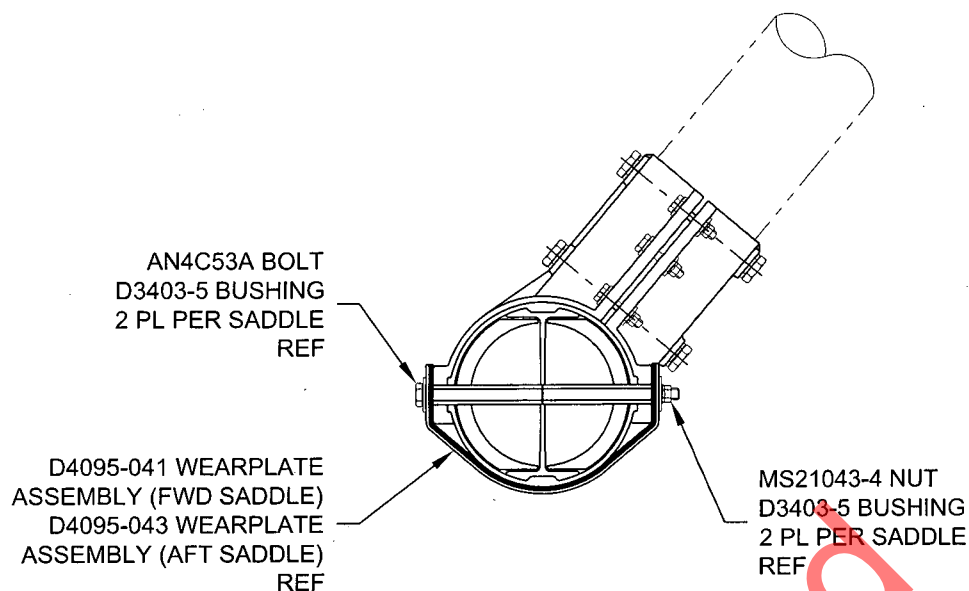


WAS:



**FIGURE 2: CHANGE AT AFT SADDLE LOCATION  
WITH DSI-9517-011 KIT INSTALLED**

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### SECTION A-A

#### DSI-9517-011 PARTS LIST:

QTY -011	PART NUMBER	DESCRIPTION
X	DSI-9517-011	WEARPLATE KIT
8	D3403-5	BUSHING
1	D4095-041	WEARPLATE ASSEMBLY
1	D4095-043	WEARPLATE ASSEMBLY
4	AN4C53A	BOLT

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THE PARTS LISTS IN SECTION 32.15 OF ICA-D412-742 (PAGES 53 AND 55) AND SECTION 5.1 OF IIN-D412-742 (PAGES 16 AND 17) ARE AMENDED AS FOLLOWS WHEN OPTIONAL DSI-9517-011 KIT IS INSTALLED:

**32.15 D412-742-011 (PMA/OEM) FLOAT SKIDTUBE INSTALLATION PARTS LIST (ICA-D412-742)**  
**5.1 D412-742-011 (PMA/OEM) FLOAT SKIDTUBE INSTALLATION PARTS LIST (IIN-D412-742)**

Item	QTY -011	QTY -041	QTY -015	PART NUMBER	DESCRIPTION
	X			D412-742-011	FLOAT SKIDTUBE INSTALLATION
	1	X		D412-742-041	FLOAT SKIDTUBE
	1		X	D412-742-015	ELECTRIC STEP KIT

**IS:**

3		10		AN3C6A	BOLT (REMOVED QTY.2)
4		4		AN3C7A	BOLT (REMOVED QTY.4)
5		38		AN960C10L	WASHER (REMOVED QTY.6)
21A		1		D4095-041	WEARPLATE ASSEMBLY
22A		1		D4095-043	WEARPLATE ASSEMBLY
46	8			D3403-1	BUSHING (REPLACED QTY.4 WITH D3403-5)
46A	8			D3403-5	BUSHING (REPLACES QTY.4 D3403-1)
49	4			AN4C52A	BOLT (REPLACED QTY.4 WITH AN4C53A)
49A	4			AN4C53A	BOLT (REPLACES QTY.4 AN4C52A)
53	8			D3672-11	WASHER (REMOVED QTY.8)

**WAS:**

3		12		AN3C6A	BOLT
4		8		AN3C7A	BOLT
5		44		AN960C10L	WASHER
21A		1		D3564-1	WEARPLATE
21B		1		D3564-3	WEARPLATE
22A		1		D3566-1	GASKET
22B		1		D3566-3	GASKET
46	16			D3403-1	BUSHING
49	8			AN4C52A	BOLT
53	16			D3672-11	WASHER

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THE PARTS LISTS IN SECTION 32.16 OF ICA-D412-742 (PAGES 57 AND 59) AND SECTION 5.2 OF IIN-D412-742 (PAGES 18 AND 19) ARE AMENDED AS FOLLOWS WHEN OPTIONAL DSI-9517-011 KIT IS INSTALLED:

**32.16 D412-742-013 (APICAL TRI-BAG) FLOAT SKIDTUBE INSTALLATION PARTS LIST (ICA-D412-742)**  
**5.2 D412-742-013 (APICAL TRI-BAG) FLOAT SKIDTUBE INSTALLATION PARTS LIST (IIN-D412-742)**

Item	QTY -013	QTY -043	PART NUMBER	DESCRIPTION
	X		D412-742-013	FLOAT SKIDTUBE INSTALLATION
	1	X	D412-742-043	FLOAT SKIDTUBE

**IS:**

3		10	AN3C6A	BOLT (REMOVED QTY.2)
4		4	AN3C7A	BOLT (REMOVED QTY.4)
5		38	AN960C10L	WASHER (REMOVED QTY.6)
21A	1		D4095-041	WEARPLATE ASSEMBLY
22A	1		D4095-043	WEARPLATE ASSEMBLY
46	8		D3403-1	BUSHING (REPLACED QTY.4 WITH D3403-5)
46A	8		D3403-5	BUSHING (REPLACES QTY.4 D3403-1)
49	4		AN4C52A	BOLT (REPLACED QTY.4 WITH AN4C53A)
49A	4		AN4C53A	BOLT (REPLACES QTY.4 AN4C52A)
53	8		D3672-11	WASHER (REMOVED QTY.8)

**WAS:**

3		12	AN3C6A	BOLT
4		8	AN3C7A	BOLT
5		44	AN960C10L	WASHER
21A		1	D3564-1	WEARPLATE
21B		1	D3564-3	WEARPLATE
22A		1	D3566-1	GASKET
22B		1	D3566-3	GASKET
46	16		D3403-1	BUSHING
49	8		AN4C52A	BOLT
53	16		D3672-11	WASHER

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